Excision of the Head of the Femur for Spontaneous Dislocation.

At the meeting of the Royal Medical and Chirurgical Society, on October 28, Mr. William Adams contributed an example of spontaneous dislocation of the head of the femur on the dorsum ilii, occurring during the progress of rheumatic fever, in a boy eleven years of age. The patient was admitted into the Great Northern Hospital on the 4th March, 1882. After two unsuccessful attempts at reduction, having previously divided the adductor longus tendon, he had excised the head of the femur on the 29th March, making a λ-shaped incision with the long arm two and a half inches in length directly over the head and neck of the bone: and the small arm, one inch in length, transversely over the head of the bone, which was at once exposed uncovered by capsular ligament, and the articular cartilage in a healthy condition. It was found that the capsular ligament had been ruptured, and the torn margins of the rent passed on either side of, and closely embraced, the neck of the bone. After dividing the margins of the capsular ligament he passed his small subcutaneous saw to the neck of the bone, and cut through it a little below the margin of the articular cartilage. The detached head of the femur was then drawn out of its position after some slight adhesions had been cut through. The round ligament preserved its normal connection with the head of the bone, and was adherent to the articular cartilage, having been divided with the saw a little below the head. The wound progressed favorably without much suppuration, and on the 1st June was completely closed. On the 14th June the patient was allowed to walk on crutches, and on the 1st October without crutches. The limb was perfectly straight, and the movement at the hip-joint freely permitted in all directions. The author observed that in all the cases of spontaneous dislocation which had fallen under his observation the head of the femur had been dislocated on to the dorsum ilii. These he arranged in three classes: (1) Dislocation occurring during the progress of fever. (2) Dislocation occurring in cases of paralysis, generally infantile, but occasionally in the adult. (3) Dislocation occurring in the first stage of hip-joint disease without suppuration. Excision of the head of the femur in its simplified form as above described the author believed would be found applicable to all these cases, unless sufficient freedom of motion be obtained by tenotomy and passive movements. He also thought it might be applicable to some cases of fibrous anchylosis of the hip after disease when the limb remained contracted, as free motion was seldom obtained by simply dividing the neck of the bone. The cases of dislocation of the hip brought before the Society by Mr. Morris were alluded to, and also the cases published in *St. Thomas's Hospital Reports*, by Sir William MacCormac, in which he excised the head, neck, and great trochanter in a case of unreduced traumatic dislocation of the hip into the thyroid foramen. The firm adhesions, and, in some cases, new bone thrown out in cases of traumatic origin as the result of the inflammation following the injury, the author observed, distinguished these cases from cases of spontaneous dislocation occurring during the progress of fever, or in cases of paralysis which had chiefly fallen under his observation.—*Medical Times and Gazette*, November 1, 1884.

Resection of the Knee.

In a recent contribution (*Mittheilungen aus der Chirurgischen Klinik zu Tübingen*, 1884) on resection of the knee in cases of fungous disease, Prof. Bruns states that of late he has attained much better results from this operation in consequence of certain improvements in its performance, in the dressing of the wound, and in the after-treatment. In nineteen out of twenty cases in which, during twelve months, the knee was excised for tubercular disease, the wounds healed by primary intention under the first dressing. Formerly, it is pointed out, the chief object in resection of this joint was to remove the whole of the deceased bone. Since, however, fungous articular disease has been regarded as an articular tuberculosis, and this view has been confirmed by the discovery of the tubercle-bacillus in the granulations of the synovial membrane and of the articular extremities of the bones, more and more attention has been directed in the operation to a careful extirpation of the granular synovial membrane. In each of the above-mentioned cases as much care was taken in removing all the diseased tissues, both within and without the joint, as would have been done in the extirpation of a malignant growth. Not only the fungous articular synovial membrane, but also the synovial pouch communicating with the joint, especially the subcrural mucous sac, was completely removed by the use of the knife and scissors. Moreover, the peri-articular tissues, as fasciæ, ligaments, and muscles, whenever diseased, were, together with the capsule, carefully removed. Peri-articular abscesses were also extirpated, and abscesses reaching upwards on to the thigh were slit up along their extent, and the abscess-membrane of each was not merely scraped away with a sharp spoon, but was extirpated *in toto*. Professor Bruns takes away the patella and also the ligamentum patellæ, the posterior surface of which is closely connected with the capsule and a pouch of the articular synovial membrane. The dissection should be carried on until healthy structures are exposed, and until finally, in front of the articular ends of the long bones, all the soft parts between the skin and the bones are removed. Notwithstanding the great extent of the wound, primary healing always takes place, as only healthy tissues are left, and all parts that might include the existing agents of inflammation are carefully removed. The great danger of relapse after excision of a tubercular joint is known to most surgeons, and has been proved by König's tables of 117 cases. In most instances, the relapse is due to the retention of tubercular deposits in the soft parts. In the knee-joint, the anatomical conditions are such as to favor a radical extirpation.

Prof. Bruns holds that it is necessary to remove the patella in almost every case of fungous disease. The retention of this bone complicates the healing of the wound, renders difficult complete removal of the synovial membrane, and increases the risks of relapse. An exception to this rule is made in some cases of resection of the knee in children. In consequence of the very probable dangers of arrest in the subsequent growth of the limb after resection on young subjects, it is necessary to remove as little of the bone as possible, and to endeavor to perform only a partial operation. If most or every part of the articular cartilages be left intact, the patella must be retained, as the patient will very probably recover with a movable joint.

Prof. Bruns states that in some cases the most suitable mode of incision is that known as the inferior curved excision, which is carried across the front of the joint and through the ligamentum patellæ, so as to form a superior flap. In the majority of cases, however, of fungous disease of the knee, the superior curved excision, recently advocated by Hahn, will, it is held, be found the most convenient. This incision forms an arch with the convexity directed upwards, and is made through the tendon of the quadriceps muscle. The flap thus formed, which contains the patella, is turned downwards, and the upper recess of the joint is at once freely exposed. When this recess is much diseased and extends far upwards in front of the thigh, the superior curved incision is by far the best. Much importance is attached to this recess, as being almost constantly involved in fungous disease, and as being the starting-point of relapse after resection. Another advantage of the superior curved incision, Prof. Bruns points out, is that the wound in the soft parts is not in the same line with that in the bones, and that the cleft between the same surfaces of the femur and tibia is covered by the flap, and not so much exposed, as in the usual operation, to external influences. In ten of the twenty recent cases of resection of the knee, Prof. Bruns made the superior curved incision, in nine cases the inferior curved incision, and in the remaining three the patella was sawn across obliquely and then removed. In each case dressings of corrosive sublimate were applied, the ends of the bones were kept in contact by two nails, and the edges of the flap were brought together by sutures applied as carefully as in a plastic operation on the face. The limb, having been inclosed in "wood-wool," was then put up in a Watson's splint and plaster-of-Paris bandage.—*London Medical Record*, Oct. 15, 1884.

OPHTHALMOLOGY AND OTOLOGY.

Cocaine as an Anæsthetic in Ophthalmic Practice.

At the meeting of the Society of Physicians of Vienna, on October 17, Dr. KARL KOLLER read a paper on this subject. The anæsthetic influence which cocaine exerts when applied locally to the mucous membrane of the tongue led Dr. Koller to try its effect on the eye. After referring to the publications of Schroff, Anrep, and Freud, he made several experiments on animals in Professor Stricker's laboratory, from which he found that two or three drops of a two per cent. aqueous solution of chloride of cocaine, introduced into the conjunctival sac, rendered the cornea and conjunctiva quite insensible. If he scratched with a needle, or even perforated the cornea of animals so treated, or passed a strong electrical current through it or touched it with caustic, the animals felt no irritation at all. As to the duration of this anæsthesia, he could obtain no idea from his experiments on animals. He tried to find out if cocaine had also an influence on the inflamed cornea. He first produced keratitis in animals by introducing a foreign body into the eye, and he found that the cocaine also acted as a local anæsthetic under these conditions. The success of these experiments on animals led him to try the effect of cocaine on the human eye, and he had obtained the following results: (1) One or two minutes after introducing a few drops of a two per cent. solution of cocaine chloride, the cornea and conjunctiva were rendered completely insensible; he could seize the conjunctiva with hooked tweezers and exert considerable pressure on the cornea, and the patient felt nothing, nor were there any reflex movements. The anæsthesia lasted from seven to ten minutes, and disappeared gradually. (2) Simultaneously with the anæsthesia, considerable dilatation of the palpebral orifice occurred, which he explained by the absence of the sources of irritation which otherwise affect the cornea and conjunctiva. (3) The ocular and palpebral conjunctiva became anæmic. (4) Fifteen minutes after introduction, mydriasis set in. It was never present in any great degree; after an hour it decreased considerably, and totally disappeared some hours later. During this period the pupil reacted quickly. (5) Paresis of accommodation set in together with the mydriasis, and also disappeared with it. (6) When the application of the above-mentioned solution of cocaine chloride was continued, and repeated every five minutes, the anæsthesia of the cornea lasted from fifteen to twenty minutes, and the deeper parts of the eyeball became anæsthetic, its sensibility being much